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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/704,171	11/01/2000	Jeffrey R. Aamodt	06576-105026 (MS#150515.1	4207

7590 04/07/2004

EXAMINER	
BASOM, BLAINE T	

ART UNIT	PAPER NUMBER
2173	

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Atlanta, GA 30303

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/704,171	AAMODT ET AL.	
	Examiner	Art Unit	
	Blaine Basom	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-50* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 November 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

The Examiner acknowledges the Applicants' amendments to independent claims 1 and 4 of the present application. The Applicants subsequently argue that these claims, and any claims dependent upon them, are allowed because the amendments incorporate limitations of previously allowed claims. In response, the Examiner notes that the amendments to claims 1 and 4 do not necessarily incorporate the same limitations of the previously allowed claims. For example, the Applicants submit that claim 1 has been amended to incorporate features of claim 15, which expresses "validating test data by determining if the test data equals a pre-defined operation; validating value data by determining if the value data is a legitimate field name or legitimate data; *and* validating image data by determining if the image data is equal to pre-define image data." However, amended claim 1 recites, in part: "validating *at least one* of test data, value data, and image data, wherein validating test data comprises determining if the test data equals a pre-define operation, validating value data comprises determining if the value data is a legitimate field name or legitimate data, and validating image data comprises determining if the image data is equal to pre-defined image data." Thus claim 1 is considerably broader in scope than claim 15. Additionally, the Examiner presents the U.S. Patents of Hayashi (5,918,238), Wiese (6,323,885), and Sonoyama et al. (6,349,315), which as shown below, may be combined to read on claims 1-50 of the present Application. Thus the Applicant's arguments with respect to the claims have been considered, but are moot in view of the new grounds of rejection which follow.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 27 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, there is no antecedent basis for "the step of obtaining graphical indicator conditions," which is recited in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, 10, and 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,918,238, which is attributed to Hayashi, and also over U.S. Patent No. 6,323,885, which is attribute to Wiese. In general, Hayashi presents a computer-implemented system for converting a monochrome document into a colored document, whereby specifically, parts of the document are colored according to content displayed in the document (see column 2, lines 1-9). Hayashi particularly teaches that such a system may be applied to a table in order to color cells of the table according to the values of data within the cells (see column 3, lines 55-65).

Specifically regarding claim 1, Hayashi describes a user interface for generating a condition structure, referred to as a "cell value-color correspondence table" (see column 9, lines 45-62). This cell value-color correspondence table is generated in response to receiving graphical indicator conditions (see column 9, lines 45-62), and defines a relationship between table data, graphical indicator conditions, and corresponding graphical indicators (see column 5, line 50 – column 6, line 31). The graphical indicators described by Hayashi correspond to image data, namely the color of the cells and the color of the data within the cells of the table (for example, see column 9, lines 11-25). Furthermore, Hayashi discloses that the graphical indicator conditions maintained by the cell value-color correspondence table are validated, specifically, each color specified in the cell value-color correspondence table is validated to determine if it is equal to predefined color data (for example, see column 6, lines 61-65). Thus the user interface of Hayashi is used for generating a condition structure in response to receiving graphical indicator conditions, the condition structure defining a relationship between data, graphical indicator conditions, and corresponding graphical indicators, and also for validating image data by determining if each color in the cell value-color correspondence table is equal to a pre-defined color. Additionally, Hayashi describes a graphical indicator engine, comprised of a "cell value comparison component" and a "color specification control word insertion component," the cell value comparison component being responsive to the graphical indicator conditions in the cell value-color correspondence table for comparing data in each cell of the table to the graphical indicator conditions, and the color specification control word insertion component being operable to output a display signal in response to the graphical indicator condition matching the data (see column 7, line 39 – column 8, line 9). In response to this display signal, a display

presents the table with each cell of the table colored according to the display signal (for example, see column 9, lines 11-25). As the graphical indicator described by Hayashi corresponds to the color of the data and table cells, the data remains in each cell and is colored according to the cell value-color correspondence table. Thus the data is not *replaced* with the graphical indicator, as is expressed in claim 1.

Like Hayashi, Wiese discusses the textual display of data, particularly data regarding real estate values (see column 1, lines 9-21). Regarding the claimed invention, Wiese teaches indicating such data with colors corresponding to the value of the data, and also, replacing the textual data with a graphical indicator, specifically a symbol, which corresponds to the value of the data (see column 1, lines 34-42; and column 3, lines 11-21).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Hayashi and Wiese before him at the time the invention was made, to modify the graphical indicators taught by Hayashi, such that they comprise symbols which are displayed in place of the data, as is done by Wiese. It would have been advantageous to one of ordinary skill to utilize such a combination, because the addition of such symbols may be used to depict more general or more specific trends in the table data, as is taught by Wiese (for example, see column 9, lines 22-39).

In regard to claim 2, Hayashi discloses that the user may input numeric values indicating tables to be processed, whereby in response, the cells of these tables are graphically indicated according to the cell value-color correspondence table described above (see column 10, line 60 – column 11, line 17). Thus the display of Hayashi and Wiese is understood to comprise a

memory storage for storing these numeric values, which determine the cells, and more specifically the tables, that are capable of supporting the display of graphical indicators.

As per claim 3, Hayashi discloses that a "cell value-color correspondence table holding component" stores the cell value-color correspondence table, which as described above, is a condition structure (see column 7, lines 39-44; and column 5, line 50 – column 6, line 31). This cell value-color correspondence table particularly comprises an "IdxB" and an "IdxF" column (for example, see the cell value-color correspondence table in figure 2). For each graphical indicator condition, these columns store an index that refers to a color table specifying graphical indicators, particularly colors, by which to display table cells and data satisfying the associated graphical indicator condition (see column 6, lines 8-31; and column 4, lines 19-37). The indexes in the IdxB and IdxF columns are thus considered graphical indicator IDs, and consequently, the graphical indicator engine of Hayashi and Wiese is considered to comprise memory storage for storing this cell value-color correspondence table which includes these graphical indicator IDs.

Referring to claim 4, the above-described combination of Hayashi and Wiese teaches a method comprising: obtaining graphical indicator conditions that determine when to display graphical indicators; converting the graphical indicator conditions into a cell value-color correspondence table that defines a relationship between cell data, graphical indicator conditions, and corresponding graphical indicators; comparing table cell data to the graphical indicator conditions retrieved from the cell value-color correspondence table to determine if there is a match; and displaying the graphical indicators depending on the outcome of this comparison between the data and the graphical indicator conditions. Additionally, as described above in the rejection for claim 2, Hayashi discloses that the user may input numeric values indicating tables

to be processed by this method, whereby in response, the cells of these tables are graphically indicated according to the cell value-color correspondence table. Thus when combined with the graphical indicators of Wiese described above, which replace the cell data, either the cell data or the graphical indicators are displayed based on these numeric values. Since this method of Hayashi and Wiese is implemented on a computer, and since almost all computers comprise some sort of cache, it is understood that these numeric values are placed in a cache to provide an indication of whether to display graphical indicators for a particular table. By the same reasoning, it is understood that either the cell data or graphical indicators are displayed in the table based on this display signal in the cache.

As per claim 5 and 6, Hayashi discloses that any existing graphical indicator conditions may be displayed as text so that the user can understand the graphical indicator conditions (see column 11, line 39 – column 12, line 11). This is particularly done by determining if any condition structures exist by checking memory storage, and converting these existing condition structures into graphical indicator text (see column 11, line 39-column 12, line 11). Additionally, Hayashi discloses that the user may have the option of changing these graphical indicator conditions (see column 9, lines 45-62). This is done by displaying graphical indicator conditions from which the user can choose (see column 9, lines 45-62). The user modifies the existing graphical indicator conditions by choosing from these graphical indicator conditions, which consequently also modifies the existing graphical indicator condition text. Lastly, the user may request an option to set these modified graphical indicator conditions either temporarily or permanently (see column 9, lines 45-62). The above-described combination of Hayashi and Wiese is thus considered to teach a method like that presented in claim 5. Furthermore, it is

interpreted that the user has some way of indicating that he or she is finished changing the graphical indicator conditions, so that the system of Hayashi actually implements the changes. The above-described combination of Hayashi and Wiese is thus further considered to teach a method like that of claim 6.

Concerning claim 7, Hayashi discloses that the table cell data is compared to the graphical indicator conditions in a particular order, rather than at random (for example, see column 7, lines 25-61). Thus some cell data is chosen for comparison before other cell data. Consequently, the table cell data of Hayashi and Wiese is considered to be compared to the graphical indicator conditions in a prioritized order.

With respect to claim 10, Hayashi describes a display signal which is input by the user, and which indicates whether graphical indicators are to be displayed for a particular table (see column 10, line 59 – column 11, line 17). This display signal, as stored in memory, is considered a cache like that recited in the claimed invention. Consequently, upon the user inputting such a display signal indicting a table in which to place graphical indicators, it is understood that the memory is checked to determine that the signal isn't already stored in memory, and if not, the display signal is stored in memory, or in other words, a cache is created.

Regarding claims 14-17, the combination of Hayashi and Wiese teaches validating graphical indicator conditions, as is described above in the rejection for claim 1. As particularly shown in the rejection for claim 1, image data within a cell value-color correspondence table is validated by determining if it is a predefined image. Hayashi further discloses that the user may enter or change the graphical indicator conditions and data within the cell value-color correspondence table (see column 9, lines 45-62). In is understood that, for this table to be

processed, relevant data must be entered into the table. In other words, the user is limited as to the conditions and data entered into the table. Thus it is understood that the test data and value data are validated to determine if they are predefined operations and legitimate data, respectively. Accordingly, it is interpreted that an error message is displayed if an error is found in the graphical indicator conditions.

With respect to claim 18, Hayashi and Wiese teach storing condition structures and graphical indicator IDs that are associated with the condition structures and that determine that graphical indicators to be displayed, as is shown above in the rejection for claim 3.

As per claim 19, Wiese discloses that by moving a cursor over a graphical indicator, a pop-up appears which displays the data represented by the graphical indicator (see column 3, lines 43-51). Hayashi and Wiese thus teach displaying the data when hovering over the graphical indicators.

As per claims 20-25, it is understood that the above-described method of Hayashi and Wiese is implemented on a computer. Such a computer implementing this method of Hayashi is considered a "computer-implemented system," like that recited in claims 20-25, particularly for the reasons described above in the rejections for claims 2-4, and 14-16.

Claims 11-13 and 26-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Hayashi and Wiese, which is described above, and also over U.S. Patent No. 6,349,315, which is attributed to Sonoyama et al. (and hereafter referred to as "Sonoyama"). As described above, Hayashi and Wiese teach a method like that recited in claim 4, whereby graphical indicator conditions are stored; a user is allowed to add more graphical indicator

conditions; the data values within the cells of a table are compared to these graphical indicator conditions to find a matching graphical indicator ID; this matching graphical indicator ID is retrieved; and a graphical indicator associated with this matching graphical indicator ID is displayed. This combination, however, does not explicitly teach determining if a field, i.e. cell, is a task field or resource field by obtaining a field type; obtaining the task type of the task field or the resource type of the resource field; and determining the graphical indicator conditions for the task type or resource type, as is recited in claim 11.

Like Hayashi and Wiese, Sonoyama presents a system whereby each cell of a spreadsheet is graphically indicated based on the value of the data within the cell (for example, see column 1, line 65 – column 2, line 14). Regarding the claimed invention, Sonoyama teaches that graphical indicator conditions may correspond to particular columns or rows of the spreadsheet, such that the cells of only that particular column or row are graphically indicated according to the graphical indicator conditions (for example, see column 4, line 63 – column 5, line 29). Thus for a single spreadsheet, there may exist multiple groups of graphical indicator conditions, each group corresponding to a different color or row of the spreadsheet (for example, see column 4, line 63 – column 5, line 29). Consequently, it is understood that for each cell, there is an inherent determination of the cell type, i.e. column or row in which the cell is located, so that the corresponding graphical indicator conditions may be properly obtained and applied to the cell.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Hayashi, Wiese, and Sonoyama before him at the time the invention was made, to modify the tables taught by Hayashi and Wiese, such that multiple groups of graphical indicator conditions may exist per table, each group corresponding to a particular column or row, as is

done by Sonoyama. It would have been advantageous to one of ordinary skill to utilize such a combination, because the provision of graphical indicator conditions per column or row of the table allows the user to view particular trends in the data of that column or row, without affecting the entire table, as is demonstrated by Sonoyama. Thus with this combination of Hayashi, Wiese, and Sonoyama, the type of cell in the table is determined, as well as the corresponding graphical indicator conditions for the type of cell, in order to graphically indicate the cells of the table according to the data within the cells. It is understood that such tables can comprise a wide variety of data types, as known in the art. Consequently, it is interpreted that the types of cells in the table could be task types and resource types, and more specifically, project summary task types, summary task types, nonsummary task types, summary resource types, and nonsummary resource types, like those recited in the claimed invention.

Regarding claims 26-37, it is understood that the above-described method of Hayashi, Wiese, and Sonoyama is implemented via a computer. Such a computer implementing this method is considered to comprise a computer-readable medium, like that recited in claim 26, particularly for the reasons described above in the rejections for claims 4-7, 10-13 and 14-19.

Regarding claims 38-50, it is understood that the above-described method of Hayashi, Wiese, and Sonoyama is implemented via a computer. Such a computer implementing this method is considered to comprise a computer-readable medium, like that recited in claim 38, particularly for the reasons described above in the rejections for claims 4-7, 10-13 and 14-19.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blaine Basom whose telephone number is (703) 305-7694. The examiner can normally be reached on Monday through Friday, from 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (703) 308-3116. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

btb

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